## **ABSTRACT**

A radio wave characteristic estimation system and its method estimate radio wave propagation characteristics in an investigation object area in a part of a coverage area of a wireless system, which becomes an object of the estimation, at high speed and with high precision, when the coverage area is wide. In a three-dimensional area including a plurality of contents, a transmission source and the investigation object area to be investigated as to the propagation environment of radio waves emitted from the transmission source are provided. When estimating a radio wave propagation environment in the investigation object area, a general radio wave propagation situation acquisition unit finds general radio wave propagation situation object area or in the vicinity thereof. A pseudo transmission source preparation unit prepares finite pseudo transmission sources to simulate the general radio wave propagation situation. A radio wave propagation estimation unit conducts detailed radio wave propagation estimation by designating the finite pseudo transmission sources as new transmission sources and an analysis area including the investigation object area as an analysis object.